PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-300369

(43)Date of publication of application : 11.10.2002

(51)Int.Cl. H04N 1/387
B41J 21/00
G03G 21/00
G03G 15/36
G06T 3/00

(21)Application number : 2001-098817

(22)Date of filing : 30.03.2001

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(54) IMAGE FORMING DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To enable to select the number of read originals and the number of laid-out images per one paper sheet after reading an original so as to increase a satisfactory sense of a user and provide a favorable impression in an aggregation mode where a plurality of the originals are reduced and distributed so as to make aggregation copy on the number of paper sheets less than the number of the originals.

SOLUTION: The image forming device having the aggregation mode where image data read by an original carrying device reading a plurality of original images are recorded while being aggregated on a paper sheet, is provided with a display means that displays the number of detected originals, the number of laid out image data aggregated on one paper sheet, presence of space on the final paper sheet where no image is laid out, and the number of spaces when the space exist, and a selection means that selects the number of laid out image data displayed on the display means.

LEGAL STATUS

[Date of request for examination] 02.04.2002

[Date of sending the examiner's decision of rejection] 02.11.2004

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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CLAIMS

[Claim(s)]
[Claim 1] Image formation equipment characterized by having a display means to display the conditions in intensive mode based on the manuscript number of sheets which the manuscript transport device read in the image formation equipment which has the intensive mode which collects and records on a form two or more image data read by the manuscript transport device.
[Claim 2] The image-formation equipment characterized by to have a display means display the conditions in intensive mode based on the manuscript number of sheets which the manuscript transport device read in the image-formation equipment which has the intensive mode which collects and records on a form two or more image data read by the manuscript transport device, and a selection means choose the conditions in intensive mode in a display means.
[Claim 3] It is image-formation equipment according to claim 2 characterized by to have a display means display the number when a margin occurs with the manuscript number of sheets detected after manuscript image reading, the assignment number of the image data collected by one sheet of form, and the existence of the margin to which an image is not assigned in ****** of a form, and the selection means which can choose the assignment number of image data in a display means.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[Description of the Prior Art] In the digital copier, it reads in JP,61-265964,A, an image is stored in memory, and the image formation equipment which has the so-called intensive mode function which records the manuscript image of predetermined number of sheets collectively on one sheet of form is shown. It is a function of a form resource desirable from the field of saving, and such a function is useful when distributing especially presentation data as records. After setting up the number of sheets of the manuscript collected by one sheet of form in this image formation equipment like four sheets and eight sheets, image formation is started when all the manuscripts for setting number of sheets are read. However, when there were few actually read manuscripts than setting number of sheets, the excessive activity which reads a blank paper manuscript further needed to be done, and it was a problem. A setup of a user of the intensive number of sheets per sheet is enabled as a means to improve this at JP,7-23211,A, and when the number of reading manuscripts and the number of setup are in agreement, the purport publication of the image formation is started and carried out.
[0001] The intensive copy of several multi-sheet manuscript is performed for the purpose of saving of a copy paper, and reduction of data pages. However, before letting a manuscript pass for the manuscript reading means arranged in the upper part of image formation equipment, there is often a case where the number of sheets of a manuscript is unknown, and the intensive number of sheets per one sheet of form is set up in many cases, without recognizing the number of copies of completion correctly. In this case, many margins in which an image is not assigned to ****** of a form may exist, or it may not become desired data pagination and the badness of user-friendliness may be impressed for a user. The user has recognized it as allowances being in a form, even if it judged that he wanted to change the intensive number of sheets per sheet, intensive mode at the time of a setup could not be changed, but it was a problem. Although setting up intensive mode is also considered after counting the number of sheets of a manuscript in advance, it is troublesome to count one number of sheets at a time.
[0002]
[Problem(s) to be Solved by the Invention] In the intensive mode in which the first purpose of this invention takes an example by the above-mentioned problem, reduce and distribute the manuscript of two or more sheets, and an intensive copy is performed on the form of few number of sheets from manuscript number of sheets manuscript number of sheets, the image assignment number per one sheet of form, the number of sheets of a required form, the existence of the margin on the form of the last page, and a margin -- that -- it is in offering the image formation equipment which enabled the display of the number of ****** after manuscript reading. The purpose of this invention is making selectable the number of sheets of a reading manuscript, and the image assignment number per one sheet of form after manuscript reading, and giving the increase of a user's satisfaction, and a good impression in the intensive mode in which take an example by the above-mentioned problem, reduce and distribute the manuscript of two or more sheets, and an intensive copy is performed on the form of few number of sheets from manuscript number of sheets.
[0003]
[Means for Solving the Problem] In order to attain the above-mentioned purpose, invention of claim 1 is characterized by having a display means to display the conditions in intensive mode, based on the manuscript number of sheets which the manuscript transport device read in the image formation

equipment which has the intensive mode which collects and records on a form two or more image data read by the manuscript transport device. By invention of claim 1, since it is detected automatically by image reading and the condition chart in intensive mode is displayed based on the read manuscript number of sheets even if a user does not count manuscript number of sheets beforehand, a user's user-friendliness can improve, and a good impression can be given.
[0004] In the image-formation equipment which has the intensive mode which invention of claim 2 collects on a form two or more image data read by the manuscript transport device in order to attain the above-mentioned purpose, and records, it is characterized by to have a display means display the conditions in intensive mode, and a selection means choose the conditions in intensive mode in a display means based on the manuscript number of sheets which a manuscript transport device read. Since a user can choose the conditions in intensive mode from a condition 1 column table after image reading termination by invention of claim 2 even if it does not count manuscript number of sheets beforehand, the increase of a user's satisfaction and a good impression can be given.
[0005] The manuscript number of sheets by which invention of claim 3 was detected after manuscript image reading in image formation equipment according to claim 1, It is characterized by having a display means to display the number when a margin occurs with the assignment number of the image data collected by one sheet of form, and the existence of the margin to which an image is not assigned in ****** of a form, and the selection means which can choose the assignment number of image data in a display means. Since a user can choose intensive mode conditions by invention of claim 3 based on the condition 1 column table which includes manuscript number of sheets, the image data assignment number, the number of a margin, and the existence of a margin after image reading termination, it becomes possible to give the increase of a user's satisfaction, and a good impression.
[0006]
[Embodiment of the Invention] Hereafter, the suitable operation gestalt of the body of equipment constituted according to this invention is further explained with reference to an accompanying drawing. Drawing 1 is the perspective view showing the appearance configuration of the copying machine 100 concerning the first operation gestalt of this invention. Drawing 2 is the front view showing the internal configuration of a copying machine 100. Drawing 3 is removing except the manuscript covering section among the manuscript conveyance sections 14 which are what was drawn typically and mention the right lateral of a copying machine 100 later. The copying machine 100 is divided in the manuscript conveyance section 14 laid in the body housing 11, its upper upper housing 11U, and the upper part of upper housing free [the extraction of the square root]. The web-material stack space section 12 which entered inside is formed in the abbreviation horizontal direction from the right-hand side side face in the pars intermedia of the body housing 11 and upper housing 11U. The web material discharged by the longitudinal direction from body housing is prepared in reception, the upper sheet tray 1 for loading, and the bottom sheet tray 2 by the web-material stack space section 12.
[0007] The exposure section 15 for upper housing 11U exposing a manuscript in an image reading station, and reading an image is built in, and the manuscript installation plate 21 which consists of a scan panel 13 or a transparent glass plate is arranged in the top face. In order to read a manuscript image, the manuscript conveyance section 14 for conveying a manuscript to image reading station R is laid above upper housing 11U. The manuscript conveyance section 14 is supported free [the extraction of the square root on upper housing] by the hinge region 9 by the side of the machine back, as shown in drawing 3 . In the closed position shown as a continuous line, it is usually laid, and it is possible to open to the open position shown with a broken line. A copying machine 100 can perform manuscript image read of two methods of a sheet through method and a manuscript immobilization system. A sheet through method is a method which carries out image read of the manuscript which has passed image reading station R by the manuscript conveyance section 14 of a closed state in the exposure section 15 which countered the image reading station and has been placed in a fixed position first. Furthermore, it is a method which carries out image read, a manuscript cover-half method making the manuscript conveyance section 14 an end open condition, laying a manuscript in manuscript installation plate 21 top face, and moving the exposure section 15. This operation gestalt explains as an example based on a sheet through method.

[0008] The body housing 11 is dividable to bottom housing 11D and its upper connection housing 11C. Bottom housing 11D builds in the feed section of a form, the image formation section which forms a toner image on a form, and the fixing section for the toner image on a form being established. Connection housing 11C builds in the form conveyance way for conveying the form after fixing and discharging towards the sheet tray of web-material stack space.
[0009] The configuration of upper housing 11U is explained to drawing 1 , and it explains based on drawing 2 . The near side of upper housing 11U is equipped with the control panel 13. The manuscript conveyance section 14 is equipped with manuscript feed tray 14a, manuscript conveyance section body 14b, manuscript paper output tray 14c, and manuscript covering 14d. Manuscript paper output tray 14c is formed in a part of manuscript covering 14d top face by direct attachment. Manuscript medium tray 14a is arranged in the upper edge on extension of the manuscript conveyance way D, and manuscript discharge tray 14c is arranged in the down-stream edge on extension of the manuscript conveyance way D. manuscript read station body 14b -- the manuscript conveyance way D -- meeting -- the downstream from the upstream of the manuscript conveyance direction -- applying -- a pickup roller 22 and a conveyance roller pair -- 23 and a resist roller pair -- 24 and a discharge roller pair -- 25 is prepared. Conveyance roller pair 23 consists of driving roller 23a and separation roller 23b. Separation roller 23b rotates to driving roller 23a and hard flow, only when a rotation load is less than predetermined torque, and when a rotation load exceeds predetermined torque, it carries out follower rotation with driving roller 23a.
[0010] Image read station R is prepared in the middle of discharge roller pair 25 as resist roller pair 24. Manuscript press section 26a for being in the sense to the manuscript installation plate 21 which counters at image reading station R above the white orientation plate 26 for shading compensations and the white orientation plate 26, and pressing the white orientation plate 26 to the manuscript installation plate 21 is prepared. the manuscript conveyance way D -- a conveyance roller pair -- it is curving so that it may be reversed while resulting [from 23] in image reading station R.
[0011] Each sensor is formed towards the downstream from the upstream of the manuscript conveyance way D. that is, the manuscript detection sensor S1 prepares in a manuscript medium tray 14a center section -- having -- a conveyance roller pair -- the feed sensor S2 prepares in the downstream of 23 -- having -- a discharge roller pair -- the downstream of 25 -- the discharge sensor S3 -- preparing -- ********.
[0012] Based on the so-called sheet through manuscript read method which carries out manuscript exposure, the following explanation is advanced with the exposure lamp fixed carrying out conveyance migration of the manuscript in the manuscript conveyance section. The manuscript of M sheets set upward to manuscript feed tray 14a in the image side is pushed against a pickup roller 22 by the predetermined pressure by set original-cover member 6b energized upward by spring member 6a. The rotation drive of a pickup roller 22 and the conveyance roller 23 is carried out by the primary feeding driving means which will not be illustrated if the copy initiation carbon button of a control panel 13 is turned on. the manuscript set to manuscript medium tray 14a -- a pickup roller 22 -- from a top-face side -- usually -- two or more sheets -- a conveyance roller pair -- it is sent to 23. only one sheet of the topmost part separates the manuscript of two or more sheets sent to conveyance roller pair 23 by separation roller 23b -- having -- a resist roller pair -- it is conveyed towards 24. an actuation halt of the feeding driving means after the manuscript tip was detected by the feed sensor S2 and only a predetermined distance was conveyed -- a conveyance roller pair -- the rotation drive of driving roller 23a of 23 and a pickup roller 22 is stopped, and primary feeding is completed. a manuscript -- the tip -- a resist roller pair -- it is stopped, where it was pressed by the nip section of 24 and a deflection is formed at the tip.
[0013] After primary feeding is completed, secondary feeding is started after predetermined time progress. that is, actuation of the secondary feeding driving means which is not illustrated -- a resist roller pair -- the rotation drive of 24 is carried out. a manuscript -- a resist roller pair -- after being made to convey towards image reading station R and discharge roller pair 25 by 24 -- final -- a discharge roller pair -- it is discharged by 25 on manuscript discharge tray 14c. Completion of the image read of one manuscript is detected by having detected back end passage of a manuscript by the delivery sensor S3 formed in the downstream of a discharge roller pair. The delivery sensor S3 has the count function which carries out counting of the manuscript number of sheets for every

completion of feed conveyance of a manuscript, and if the manuscript set detection sensor S1 is detecting the consecutive manuscript, manuscript conveyance after the 2nd sheet will be continued. A manuscript is conveyed while the white orientation plate 26 and manuscript press section 26a press the front face of the manuscript installation plate 21 lightly, in case image reading station R is passed, and light scanning of the manuscript image side is carried out with the exposure lamp 27 which opposes on both sides of a manuscript installation plate.

[0014] Next, the exposure section 15 is explained. In drawing 2 , it has CCD33 of the exposure lamp 27 and a reflecting plate 28, the 1st mirror 29, the 2nd mirror 30, the 3rd mirror 31, a condenser lens 32, and image sensors, for example, the Rhine mold. The exposure lamp 27 and the 1st mirror 29 are carried on the first carriage (not shown), and the 2nd mirror 30 and the 3rd mirror 31 are carried on the second carriage (not shown). At the time of manuscript reading, the first carriage moves directly under said image reading location R, and an optical exposure light from the exposure lamp 27 exposes a manuscript. Exposure light reaches CCD33 through the 1st mirror 29, the 2nd mirror 30, the 3rd mirror 31, and a condenser lens 32. By receiving the reading scan by the exposure section 15, contraction image formation of the manuscript image on the manuscript installation plate 21 is carried out on CCD33, and it is read here so that it may become an electrical signal through photo-electric-conversion processing.

[0015] Next, the structure of bottom housing is explained among bottom housing 11D which forms the body housing 11, and connection housing 11C. The sheet cassette 34, the image formation section 36, and an anchorage device 37 are built in the feed section of the lower part of bottom housing 11D. One web-material P held in the sheet cassette 34 is sent out at a time by delivery koro 34a. The left-hand side lower part section of bottom housing 11D is equipped with the manual paper feed tray 35 which can be opened and closed, it also lets out web-material P set to this manual paper feed tray 35, and one sheet is sent out at a time by koro 35a.

[0016] Next, the image formation section is explained. In the image formation section 36, the photo conductor drum 38 is an organic photo conductor drum of negative electrification nature, and rotates by 100mm/second in rate in the direction illustrated at the time of a drive. After carrying out uniform electrification of the front face of the photo conductor drum 38 -750V by the corona discharge generated from the Maine charger 39 with which the seal of approval of the high voltage of -5kV was carried out, the electrostatic latent image which consists of parts of ******-100V and dark potential-750V by the exposure of the beam light from the laser scanning unit 40 is formed. Furthermore, an electrostatic latent image is rotated even in a development location by rotation of a photo conductor. Developing-roller 41a of the developer 41 interior is rotating by 210mm/second in rate in the same direction as a photo conductor drum in a development field at the time of a drive. In the development section 41, it has the developer which mixes the negative electrification nature toner 5 weight section of 9 micrometers of volume mean diameters (median size by the Coulter counter), and the magnetic ferrite carrier 95 weight section with a pitch diameter of 80 micrometers (the sifting-out method), and is obtained, and by carrying out the seal of approval of development bias voltage-550V to developing-roller 41a, reversal development of the toner is carried out and toner imaging of the electrostatic latent image is carried out to the exposure part on the front face of a photo conductor.

[0017] Conveyance timing is adjusted by the resist roller 4 and the form which let out one sheet at a time from the sheet cassette 34 or the manual paper feed tray 35, and has been conveyed up through the conveyance way 3 has between the photo conductor drum 38 and the imprint rollers 42 conveyed synchronizing with the toner image on a photo conductor approaching the roller transfer section 42. Most toners in a toner image transfer on a form by a form tip and a toner image section tip being in agreement, and passing the roller transfer section by this. A toner is removed in part by the cleaner 41 which did not transfer on the form but remained on the photo conductor drum front face and which was formed in the style of the lowest. The form with which the toner image was imprinted is sent to an anchorage device 37. An anchorage device 37 has heat roller 38a and pressurization roller 38b, a toner image is established on a form and a copy object is obtained by these roller pair.

[0018] The form which passed fixing nip is conveyed up along the vertical perpendicular conveyance way 42 as it is. the perpendicular conveyance way 42 -- connection housing 11C -- entering -- a conveyance roller pair -- if 43 is passed, it has branched on the rightward level

conveyance way 44 and the upper slanting conveyance way 45, and the branching pawl 46 which distributes the conveyance direction of a form in the branching part is formed. In 2 Fig., a form can distribute a travelling direction to the level conveyance way 44, and is discharged on the bottom sheet tray 2.

[0019] A setup of the whole copying machine of operation is performed to the control panel 13 prepared before the body, and the liquid crystal touch panel which displays the contents of a setting and a situation of operation is prepared. The selection key of the "basic" selection key 62, the "variable power" selection key 63, and the "functional" selection key 64 prepares in the key selection area 61 of the liquid crystal touch panel shown in drawing 4 , and it is ********. In this case, the "basic" selection key is displayed in the white omission alphabetic character of a black material, image formation equipment reaches predetermined fixing temperature, and it expresses that it is in the usual standby condition which can be printed. by pressing the function selection key 64, as shown in drawing 5 , the basic selection key 62 becomes the usual black alphabetic character from a white omission alphabetic character, and the function selection key 64 changes into a white omission alphabetic character from the usual black alphabetic character -- having -- tone reversal, a mirror image, division, and a margin -- it **** and each function of concentration is displayed selectable. When selection in intensive mode and the detail in intensive mode must be specified, by carrying out the depression of the part for the corresponding key function display, others and the manuscript concentration controller 65 as which the setting screen of a detail function which is mentioned later is displayed adjusted manuscript concentration for getting light (thinly), and the form of A4 size is chosen with the paper-size selection carbon button 71. Print number of sheets and print number of copies are set up by the number-of-sheets setup key 70. The contents of a setting are displayed on the message indicator section 64. A print job is started by the print button 68. Also after setting up print number of sheets and print number of copies, number of sheets can be changed with a stop / clear carbon button 69.

[0020] Drawing 13 is the block diagram showing control of a copying machine 100. The main control section 71 controls the whole equipment, operates each part according to the image creation conditions which carried out the setting input by the actuation display 72, and realizes an image transceiver function, a copy function, etc. Especially in the copy function, it has the function of Nin1 which records the image of two or more manuscripts read by the read station 73 on the recorded media of one sheet.

[0021] The actuation display 72 can display various information, such as a message to a user, a message which shows the condition of equipment, and actuation guidance. Furthermore, it is used in case a user performs various kinds of setup, directions, etc. For example, the start key which performs the selection key which performs selection of a transmitting function or a copy function, the selected activation directions of a function, etc. is prepared. Furthermore, use of the function of Nin1 can be specified at the time of a copy function. It can be fixed to 2 or 4, for example, or can choose from a fixed value, or the value of N can constitute so that any value can be chosen from a ten key etc. Of course, it can choose also about the size (magnitude and sense) of the recorded media which should record an image.

[0022] A read station 73 reads the image on the manuscript which should be transmitted or copied. CCD, an A/D converter, the shading compensation circuit, the MTF& gamma correction circuit, the selector, and the variable power circuit are connected in order. Thereby, the information on the read manuscript image in which photo electric conversion was carried out by CCD is changed into a digital signal by the A/D converter, and is inputted into a selector in response to MTF amendment and gamma amendment in a shading compensation circuit in a shading compensation and an MTF& gamma correction circuit. This selector changes the destination of image data by the variable power circuit and the image memory controller. When a variable power circuit side is chosen by the selector, after image data receives zooming processing in a variable power circuit according to the rate of variable power, it is sent out to writing 74 and the actual writing to a photo conductor is performed by the aligner.

[0023] When the image memory controller 75a side is chosen by the selector, after image data is compressed by the picture compression circuit in this image memory controller 75a, it is written in image memory 75b. It is sent out to the Records Department 74 in the condition of having made two

or more manuscript images reading into the division area which divided the area for the transfer paper whole surface in image memory 75b one by one, and by the aligner, the actual writing to a photo conductor is performed and an image intensive copy is performed.
[0024] NCU76a controls a circuit and performs the communication link with an external instrument. Moreover, modem 76b accumulates the image data which received. In processing of the main control section 71 or other each part, RAM77 is used, when data need to be saved. The program as which ROM78 specified actuation of the main control section 11, fixed data, etc. are stored. The bus 79 has connected the main control section 71, the actuation display 72, a read station 73, the Records Department 74, image memory controller 75a, image memory 75b, NCU76, a modem 77, RAM78, and ROM79 grade mutually, and makes data transfer between these possible.
[0025] Next, with reference to the flow chart which reaches and shows the various screens of the control panel shown in drawing 4 - drawing 11 to drawing 12 , the procedure in the various modes in the gestalt of this operation etc. is explained in order. This invention is explained in the flow chart shown in drawing 12 . In S101, the existence of an intensive function is chosen in an actuation display. If an intensive function is chosen, it progresses to S102 and a start button is turned on. It progresses to S103, image read of two or more manuscripts is performed, and the whole manuscript number of sheets N is detected in S104. Subsequently, in S105, it carries out based on the manuscript number of sheets N, and the intensive mode chart which specified the need number of sheets of the form in each intensive number of sheets, the number of the image margin sections in the last page of a form, etc. is displayed. In S106, intensive mode (Min1) is chosen from an intensive mode chart, an actual image output is performed in S107, and it ends in S108. If the normal mode is chosen without choosing an intensive function in S101, after progressing to S201 and turning on a start button, in S202, image read of two or more manuscripts is performed. Subsequently, the image output in the normal mode is performed in S203, and it ends in S108.
[0026] Next, order is explained for the contents of an actuation display corresponding to a flow chart in full detail later on. The manuscript of this operation gestalt is A4 size respectively, and the whole number of sheets is unknown. First, the actuation display of the usual standby condition of a copying machine is shown in drawing 4 . a "function" is shown in selection (it pushes) and drawing 5 -- as -- "a function" -- the white omission alphabetic character from a black alphabetic character -- reversed -- "tone reversal", a "mirror image", "division", and a "margin" -- " -- **** is carried out and each function of "and "concentration" is displayed. when the "intensive" function selection section is pushed, it is shown in drawing 6 -- as -- selection of an intensive function -- checking -- the setting timing of the concrete conditions in intensive mode -- being related -- "the termination back of manuscript read", and "next -- immediately -- " -- the display which asks any they are is made. By pushing the "manuscript read termination back" in drawing 6 for selection, the inverse video of black and white is carried out, and it progresses to drawing 7 . The purport which performs manuscript read in drawing 7 , and the display to which a print button ON is urged are made. It indicates that manuscript reading was started in drawing 8 . It indicates that manuscript reading was completed by the 19th sheet in drawing 9 . Subsequently, in drawing 10 , required form number of sheets and the number (the case without a margin is zero piece) of the margin to which the image in the last page of a form is not assigned are displayed in that there was 19 manuscript read number of sheets and the monograph affair in intensive mode, and the display to which it urges choosing conditions from a monograph affair is made. The monograph affair of 1 is specifically as selectable [intensive number of sheets / in 1 / with 1] in 10 Fig. as 1 in the case of this image formation equipment 8 inches 4 inches 3 inches 2 inches. Selection of 1 [2 inches] indicates that there are ten required forms and that the number of the margins generated in the 10th last page is one. Selection of 1 [3 inches] indicates that there are seven required forms and that the number of the margins generated in the 7th last page is two. Selection of 1 [4 inches] indicates that there are five required forms and that the number of the margins generated in the 5th last page is one. Selection of 1 [8 inches] indicates that there are three required forms and that the number of the margins generated in the 3rd last page is five. It is possible for a user to judge the number of a margin etc., when the required form number of sheets displayed on drawing 10 , the existence of generating of the margin in the last page, and a margin occur, and to choose suitable intensive number of sheets for a user. If it pushes for selection any of "2inch1", "3inch1", "4inch1", and "8inch1" of front Naka they are, the inverse video of the

information on selected "intensive number of sheets", "form number of sheets", and a "last page margin" will be carried out. In drawing 10 , 4 inch one copy is chosen (it pushes), consequently the inverse video of the 4 inch one condition is carried out. Subsequently, an actual copy is started by making the display to which the purport which changes to drawing 11 and pushes a print button in 4 inch 1 mode is urged, and pushing a print button.

[0027] In this operation gestalt, although together put about the read manuscript, it is applicable also to the image data which is not limited to this and sent with the personal computer etc., and the image data accumulated in memory.

[0028]

[Effect of the Invention] As stated above, in intensive mode, based on the manuscript number of sheets which was counted at the time of manuscript reading according to this invention The image assignment number per one sheet of form, the number of sheets of a required form, the existence of the margin on the form of the last page, and a margin -- that, since the display of the number of ****** after manuscript reading is enabled, and the image assignment number per one sheet of form is made selectable after checking the contents of a display It became possible to give the increase of a user's satisfaction, and a good impression.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the perspective view showing the appearance configuration of the copying machine 100 concerning the 1st operation gestalt of this invention.
[Drawing 2] It is the front view showing the internal configuration of the copying machine 100 concerning the 1st operation gestalt of this invention.
[Drawing 3] It is the mimetic diagram showing the extraction-of-the-square-root condition of the manuscript conveyance section seen from the right lateral of the copying machine 100 concerning the 1st operation gestalt of this invention.
[Drawing 4] It is the example of a screen of the control panel in a standby condition.
[Drawing 5] "tone reversal", a "mirror image", "division", and a "margin" -- " -- it is the example of a screen of the control panel with which **** was carried out and the selection screen of each function of "and "concentration" was displayed.
[Drawing 6] It is the example of a screen of the control panel which made setting timing selectable after asking [when concrete intensive conditions are set up after selection of an intensive function, and].
[Drawing 7] In order to perform manuscript reading, it is the example of a screen of the control panel urged to push a print button.
[Drawing 8] It is the example of a screen of the control panel in which the 1st page of a manuscript is read into and it is shown that it is inside.
[Drawing 9] Manuscript reading is the example of a screen of the control panel in which having ended by total of 19 pages is shown.
[Drawing 10] It is the example of a screen of the control panel in which having urged selection of the concrete conditions in each intensive mode, and having chosen 1 [4 inches] to 19 manuscript reading pagination is shown.
[Drawing 11] It is the screen to which it urges 4 inch1 mode setting being shown and pushing a print button.
[Drawing 12] It is the flow chart which shows the description of this invention.
[Drawing 13] It is the block diagram showing an exchange of the control signal of this invention.
[Description of Notations]
1 Upper Sheet Tray
2 Bottom Sheet Tray
6a Spring member
6b Original-cover member
9 Hinge Region
11 Body Housing
11U Upper housing
11C Connection housing
11D Bottom housing
12 Web-Material Stack Space Section
13 Scan Panel
14 Manuscript Conveyance Section
14a Manuscript medium tray

14b Manuscript conveyance section body
14c Manuscript paper output tray
14d Manuscript covering
D Manuscript conveyance way
21 Manuscript Installation Plate
22 Pickup Roller
23 Conveyance Roller Pair
23a Driving roller
23b Separation roller
24 Resist Roller Pair
25 Discharge Roller Pair
26 White Orientation Plate
26a Manuscript press section
R Manuscript reading station
S1 Manuscript detection sensor
S2 Feed sensor
S3 Discharge sensor
27 Exposure Lamp
28 Reflecting Plate
29 First Mirror
30 Second Mirror
31 Third Mirror
32 Condenser Lens
33 CCD
34 Sheet Cassette
34a Delivery koro
36 Image Formation Section
37 Anchorage Device
38 Photo Conductor Drum
39 Maine Charger
40 Laser Scanning Unit
42 Perpendicular Conveyance Way
43 Conveyance Roller Pair
44 Level Conveyance Way
45 Conveyance Way
46 Branching Pawl
61 Key Selection Area
62 "Basic" Selection Key
63 "Variable Power" Selection Key
64 "Functional" Selection Key
65 Manuscript Concentration Controller
68 Print Button
69 Stop / Clear Carbon Button 70 Number-of-Sheets Setup Key
71 Paper-Size Selection Carbon Button
71a Main control section
72 Scan Display
73 Read Station
74 Write-in Section
75a Image memory controller
75b Image memory
78 ROM
79 RAM

[Translation done.]

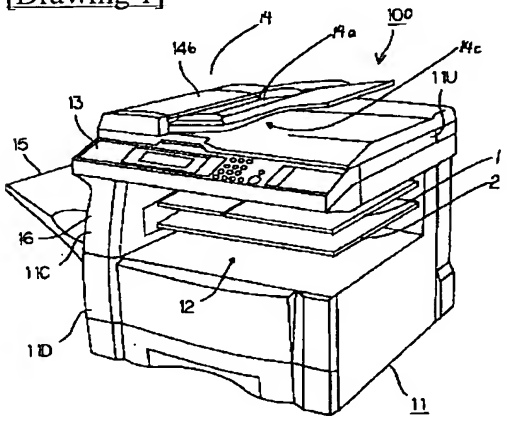
* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

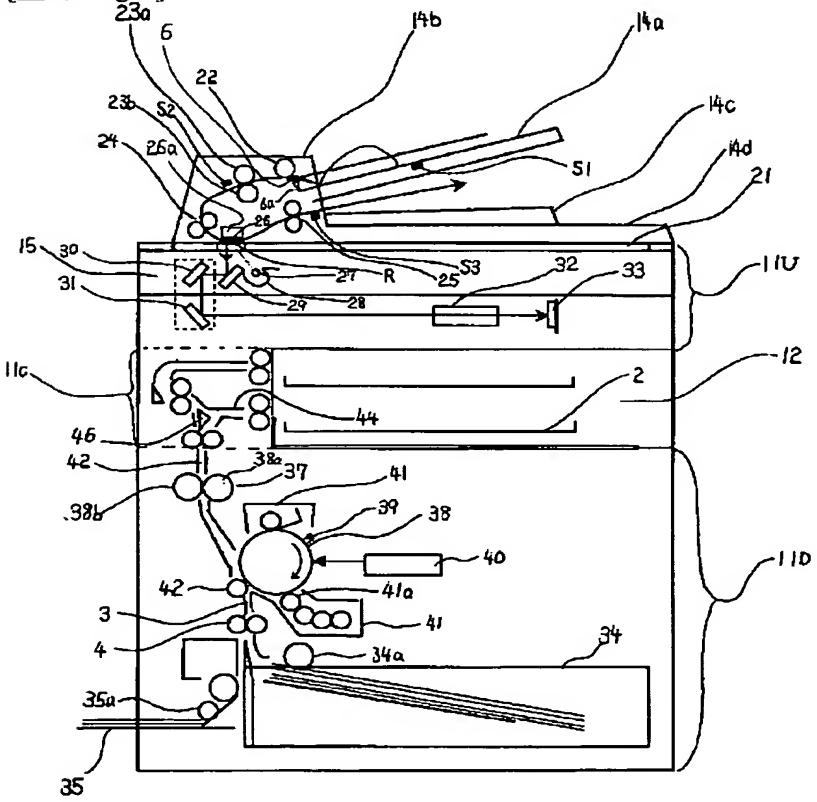
1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DRAWINGS

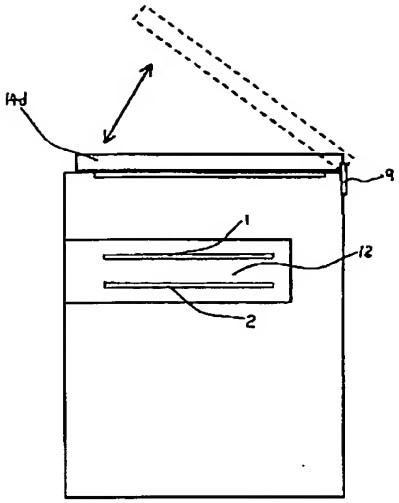
[Drawing 1]



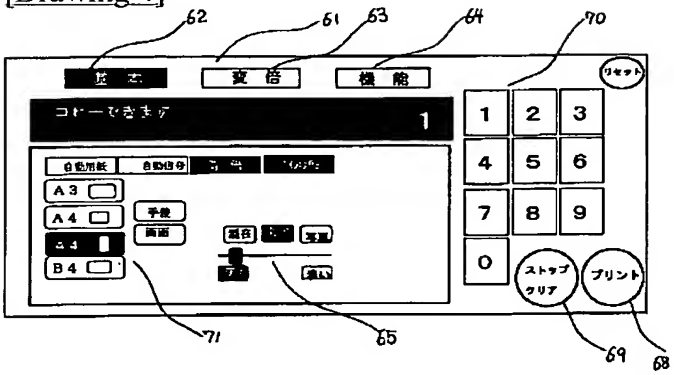
[Drawing 2]



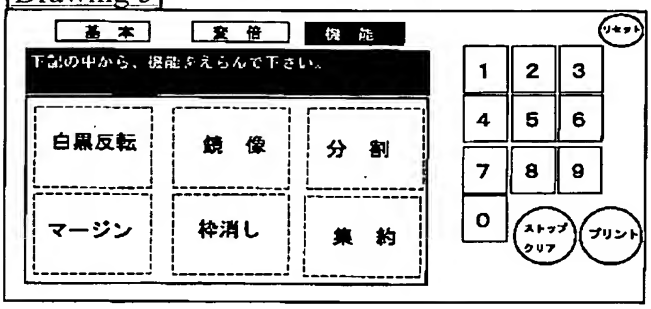
[Drawing 3]



[Drawing 4]



[Drawing 5]



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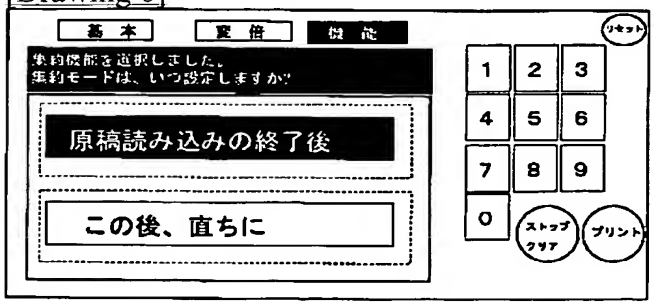
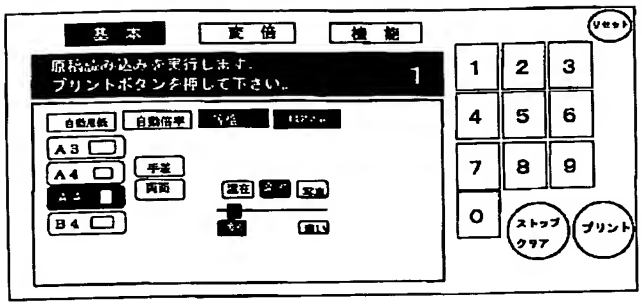
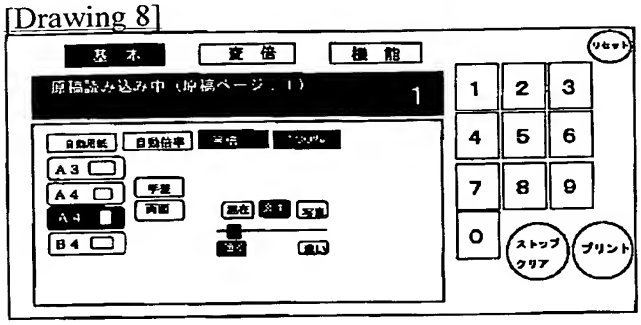


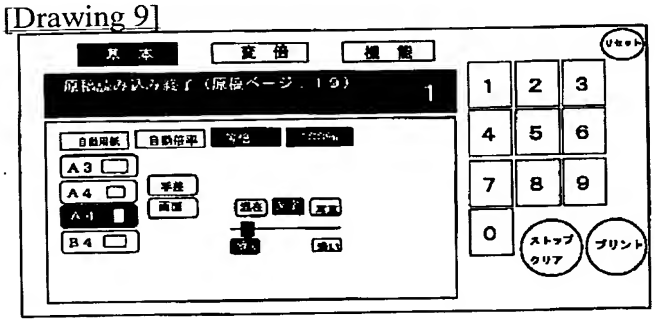
[Drawing 7]



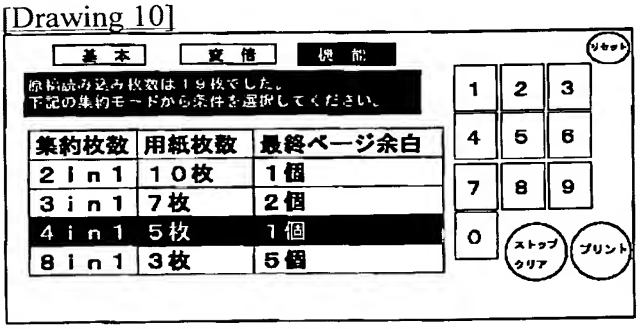
[Drawing 8]



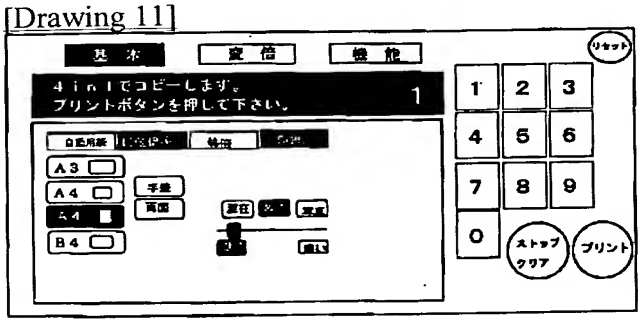
[Drawing 9]



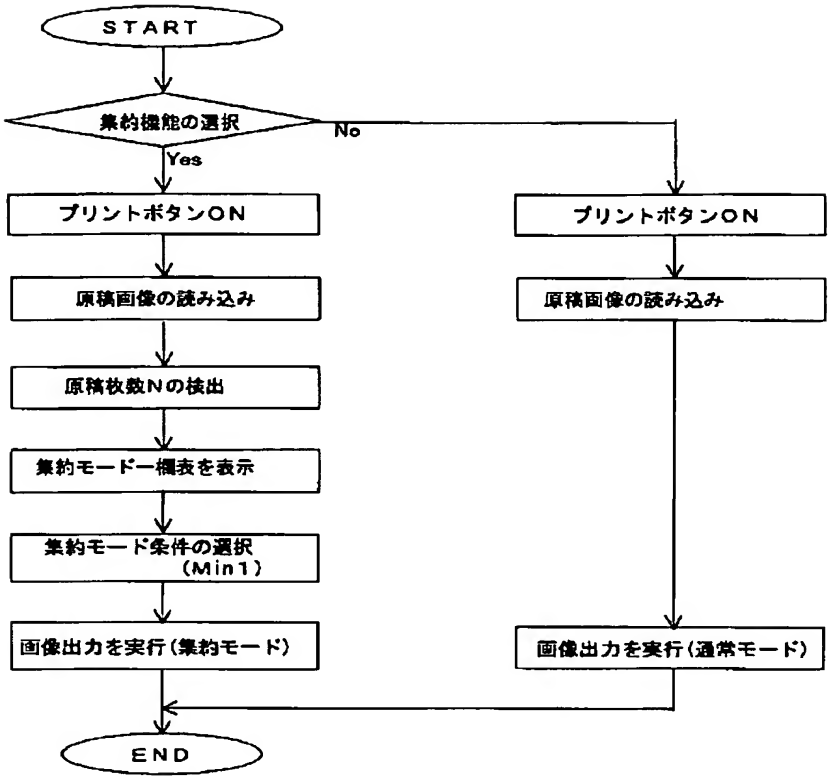
[Drawing 10]



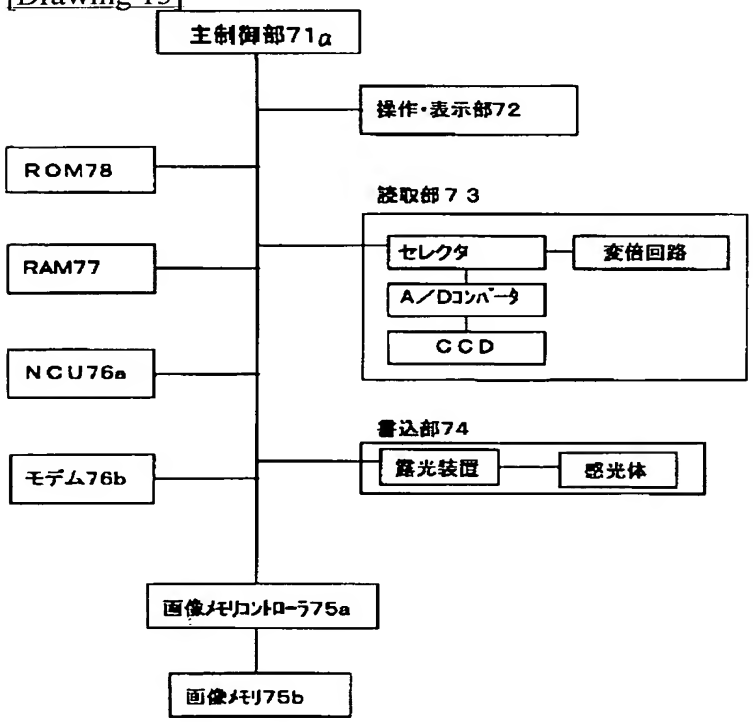
[Drawing 11]



[Drawing 12]



[Drawing 13]



[Translation done.]